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(FILE 'USPAT' ENTERED AT 12:52:09 ON 07 OCT 1997)

DEL HIS

L1 0 S AUDIO(5A) (ON(W)DEMAND)  
L2 25 S AUDIO ON DEMAND  
L3 187 S AUDIO (P) (STORAG###(5A)PLAYBACK###)  
L4 16 S MODEM (L) ((HIGH OR FAST) (5A)HARD DRIVE)  
L5 227404 S PORTABLE OR TRANSPORTABLE OR REMOVABLE  
L6 2 S L3 (L) L4 (L) L5  
L7 303 S 395/200.67,200.47,200.49,200.36,200.77/CCLS  
L8 990 S 348/7,6,12,13/CCLS  
L9 2 S 711/1,4,102,103/CCLS  
L10 417 S 395/401,404,429,430/CCLS  
L11 661 S 455/4.2,5.1,6.3,3.2/CCLS  
L12 18 S L3 AND (L7 OR L8 OR L9 OR L10 OR L11)  
L13 5 S L4 AND (L7 OR L8 OR L9 OR L10 OR L11)  
L14 11 S L2 AND (L7 OR L8 OR L9 OR L10 OR L11)

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360

381

200.61-62

=> d l12 1-18;d l13 1-5;d l14 1-11

1. 5,675,390, Oct. 7, 1997, Home entertainment system combining complex processor capability with a high quality display; Jeffrey Schindler, et al., 348/552; 345/132; 348/441, 725, 731; 455/6.3 [IMAGE AVAILABLE]
- \ 2. 5,640,453, Jun. 17, 1997, Universal interactive set-top controller for downloading and playback of information and entertainment services; Leonard Schuchman, et al., 380/10; 348/6, 7, 10, 12; 380/3, 4, 5, 20, 49; 455/3.1, 4.1, 4.2, 5.1, 6.1, 6.2 [IMAGE AVAILABLE]
3. 5,623,623, Apr. 22, 1997, Digital storage system adopting semiconductor memory device; Suk-ki Kim, et al., 395/430; 364/237.8, 260.6, DIG.1; 395/800.36, 888, 889 [IMAGE AVAILABLE]
4. 5,621,456, Apr. 15, 1997, Methods and apparatus for audio-visual interface for the display of multiple program categories; Fabrice Florin, et al., 348/7, 12, 13; 455/4.2, 5.1 [IMAGE AVAILABLE]
5. 5,617,539, Apr. 1, 1997, Multimedia collaboration system with separate data network and A/V network controlled by information transmitting on the data network; Lester F. Ludwig, et al., 395/200.35; 348/12; 370/260; 395/200.68, 200.79, 330 [IMAGE AVAILABLE]
6. 5,583,560, Dec. 10, 1996, Method and apparatus for audio-visual interface for the selective display of listing information on a display; Fabrice Florin, et al., 348/7, 12, 13; 455/4.2, 5.1 [IMAGE AVAILABLE]
- \ 7. 5,574,662, Nov. 12, 1996, Disk-based digital video recorder; Kevin D. Windrem, et al., 395/200.49 [IMAGE AVAILABLE]
- \* 8. 5,572,442, Nov. 5, 1996, System for distributing subscription and on-demand audio programming; Nathan Schulhof, et al., 395/200.49; 348/6, 7; 455/4.2 [IMAGE AVAILABLE]
- \* 9. 5,557,541, Sep. 17, 1996, Apparatus for distributing subscription and on-demand audio programming; Nathan Schulhof, et al., 348/7; 360/15 [IMAGE AVAILABLE]
10. 5,424,770, Jun. 13, 1995, Method and apparatus for automatic insertion of a television signal from a remote source; Richard A. Schmelzer, et al., 348/9, 705; 455/3.2, 4.1 [IMAGE AVAILABLE]
- \ 11. 5,262,875, Nov. 16, 1993, Audio/video file server including decompression/playback means; Earl I. Mincer, et al., 386/101; 348/6; 386/104 [IMAGE AVAILABLE]
12. 5,253,341, Oct. 12, 1993, Remote query communication system; Anthony I. Rozmanith, et al., 395/200.49; 348/12; 395/200.77, 610, 934 [IMAGE AVAILABLE]
13. 5,208,665, May 4, 1993, Presentation player for an interactive digital communication system; Karl W. McCalley, et al., 348/12; 455/5.1 [IMAGE AVAILABLE]
14. 5,195,092, Mar. 16, 1993, Interactive multimedia presentation & communication system; Steven D. Wilson, et al., 348/13; 340/825.5; 348/19; 370/498, 528 [IMAGE AVAILABLE]
15. 5,191,410, Mar. 2, 1993, Interactive multimedia presentation and communications system; Karl W. McCalley, et al., 348/13; 379/93.12 [IMAGE AVAILABLE]

AVAILABLE]

16. 5,172,413, Dec. 15, 1992, Secure hierarchial video delivery system and method; Graham C. Bradley, et al., 380/20; 340/825.31, 825.34; 348/7; 380/5, 23; 455/3.1, 6.1 [IMAGE AVAILABLE]

17. 5,133,079, Jul. 21, 1992, Method and apparatus for distribution of movies; Douglas J. Ballantyne, et al., 455/4.1; 348/7, 10, 13; 386/104, 109; 455/5.1, 72 [IMAGE AVAILABLE]

18. 4,797,750, Jan. 10, 1989, Method and apparatus for transmitting/recording computer-generated displays on an information channel having only audio bandwidth; Michael J. Karweit, 386/96; 348/6; 364/222.2, 222.3, 232.9, 236.3, 237.2, 237.8, 237.81, 238.5, 248.2, 260, 260.1, DIG.1; 386/106; 395/807; 434/307A, 307R [IMAGE AVAILABLE]

dL13 1-5

1. 5,659,351, Aug. 19, 1997, Switch and insertion networks in optical cable TV system; David R. Huber, 348/7, 6, 13; 359/125; 455/4.2, 5.1 [IMAGE AVAILABLE]

2. 5,594,490, Jan. 14, 1997, System for distributing video/audio files from central location to a plurality of cable headends; William P. Dawson, et al., 348/6, 12; 371/32; 455/3.2, 5.1 [IMAGE AVAILABLE]

3. 5,572,442, Nov. 5, 1996, System for distributing subscription and on-demand audio programming; Nathan Schulhof, et al., 395/200.49; 348/6, 7; 455/4.2 [IMAGE AVAILABLE]

4. 5,557,541, Sep. 17, 1996, Apparatus for distributing subscription and on-demand audio programming; Nathan Schulhof, et al., 348/7; 360/15 [IMAGE AVAILABLE]

5. 5,499,046, Mar. 12, 1996, CATV distribution system with each channel having its own remote scheduler; Jay B. Schiller, et al., 348/6, 3, 12; 455/5.1, 6.1 [IMAGE AVAILABLE]

dL14 1-11

1. 5,666,293, Sep. 9, 1997, Downloading operating system software through a broadcast channel; Erik C. Metz, et al., 395/200.5; 348/7, 10, 12; 455/3.1, 4.1, 4.2, 5.1 [IMAGE AVAILABLE]

2. 5,635,979, Jun. 3, 1997, Dynamically programmable digital entertainment terminal using downloaded software to control broadband data operations; Bruce Kostreski, et al., 348/13, 10, 12; 364/976.3, DIG.2; 455/4.2, 6.3 [IMAGE AVAILABLE]

3. 5,630,204, May 13, 1997, Customer premise wireless distribution of broad band signals and two-way communication of control signals over power lines; Denny L. Hylton, et al., 455/3.3; 340/310.06; 348/6, 7, 8, 12; 370/342; 455/4.2, 5.1 [IMAGE AVAILABLE]

4. 5,627,836, May 6, 1997, VPI/VCI administration; Lisa Conoscenti, et al., 370/397; 348/7; 370/486; 455/3.1 [IMAGE AVAILABLE]

5. 5,613,191, Mar. 18, 1997, Customer premise wireless distribution of audio-video, control signals and voice using CDMA; Denny L. Hylton, et al.,

455/3.1; 348/7, 12; 370/342; 455/4.2 [IMAGE AVAILABLE]

6. 5,613,190, Mar. 18, 1997, Customer premise wireless distribution of audio-video, control signals and voice; Denny L. Hylton, 455/3.1; 348/6, 12, 13; 455/4.2, 6.3 [IMAGE AVAILABLE]

7. 5,583,864, Dec. 10, 1996, Level 1 gateway for video dial tone networks; Regina Lightfoot, et al., 370/396; 348/3, 7; 370/404; 379/201 [IMAGE AVAILABLE]

8. 5,572,442, Nov. 5, 1996, System for distributing subscription and on-demand audio programming; Nathan Schulhof, et al., 395/200.49; 348/6, 7; 455/4.2 [IMAGE AVAILABLE]

9. 5,557,541, Sep. 17, 1996, Apparatus for distributing subscription and on-demand audio programming; Nathan Schulhof, et al., 348/7; 360/15 [IMAGE AVAILABLE]

10. 5,544,161, Aug. 6, 1996, ATM packet demultiplexer for use in full service network having distributed architecture; John A. Bigham, et al., 370/397; 348/6, 7, 12; 370/474 [IMAGE AVAILABLE]

11. 5,541,638, Jul. 30, 1996, User programmable entertainment method and apparatus; Guy A. Story, 348/7, 13; 455/4.2 [IMAGE AVAILABLE]

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L6 2 L3 (L) L4 (L) L5

=> d 16 1-2 cit,ab,kwic

1. 5,572,442, Nov. 5, 1996, System for distributing subscription and on-demand audio programming; Nathan Schulhof, et al., 395/200.49; 348/6, 7; 455/4.2 [IMAGE AVAILABLE]

US PAT NO: 5,572,442 [IMAGE AVAILABLE]

L6: 1 of 2

ABSTRACT:

A distribution system for audio program materials includes a portable audio storage and retrieval device that is programmable from a high speed data transfer system, and that includes a high-capacity data storage medium, a base control interface for identifying and accepting program material, a mobile control interface for displaying the identity of recorded material for playback selection, a recording mechanism for accepting very high speed digital data from an external source at rates faster than real time, and a playback mechanism for retrieving the stored data from the storage medium and for converting the data into audio signals for playback.

DETDESC:

DETD(3)

FIG. 1 is a block level schematic diagram of a high capacity, remotely programmable audio storage and playback system according to the present invention.

DETDESC:

DETD(4)

The . . . be implemented in any known digital storage technology, for example as a plurality of digital storage media, such as ultra fast hard drives. Program material may be introduced into the library from a variety of sources 14, 15, 16 that may be delivered electronically over a variety of data communications media at high speed from a plurality of locations, for example via modem transfer from a distributor, such as the Wall St. Journal.

DETDESC:

DETD(10)

A portable program storage/playback system 40, provides a specialized set of three interrelated subsystems that together capture the selected audio program material, store the program material, and enable easy transportation of the stored program material to a playback unit located . . . for example in a mobile environment, such as an automobile. The three subsystems include a base docking device 36, a portable storage unit 50, and a mobile docking device 44. Once program materials are stored on the portable storage medium 50 as discussed above, the medium is transferred (60) to an interface 42 provided by the mobile docking. . .

DETDESC:

DETD(11)

The subscriber attaches the portable storage device 50 to the base docking device 36, to which the cable from a cable TV supplier 28 is. . .

DETDESC:

DETD(14)

An . . . manager 10 keeps track of the duration of each selection, and informs the subscriber when the capacity on the particular portable storage device had been reached. It is anticipated that systems having various storage capacities may be offered to subscribers based. . .

DETDESC:

DETD(21)

The . . . the state of the art is such that approximately 4-6 or more hours of material may be stored in the portable storage medium. Such medium may be a hard disk drive, a floppy optical drive (floptical), a CD-ROM, a flash memory. . .

DETDESC:

DETD(22)

For . . . types of program material, such as music (typically 20-20,000 Hz). Thus, the actual transfer time, and storage time of the portable storage medium, are a function of the type of material transferred. The materials transferred are processed in accordance with many. . .

DETDESC:

DETD(25)

At any time after completion of the data transfer, the subscriber may disengage the portable storage module from the base docking station, and take it to a mobile docking station, for example in a vehicle,. . .

DETDESC:

DETD(27)

The Library. The library is a storage system that uses high capacity hard drives with at least 10 MB/sec read capabilities. This high read speed enables access and transmission to the subscriber over the. . .

DETDESC:

DETD(37)

The Portable Program Storage/Playback System.

DETDESC:

DETD(38)

FIG. 2 is a block level schematic diagram of a transportable, high capacity audio storage medium 50, including base 36 and mobile 42 docking ports according to the invention.

DETDESC:

DETD(39)

The portable storage device consists of the following items: The base docking system 36, the portable storage system 50, and the mobile docking/playback system 42. The base station includes a processor 66 that receives an input. . . demodulates, decodes, and decrypts the signal as necessary. A write circuit 67 transfers the program material thus prepared to the portable storage medium 50. The write circuit is chosen as appropriate for the portable storage medium, e.g. a disk drive for a hard disk storage medium.

DETDESC:

DETD(40)

The portable medium is intended for transportable use. Thus, the medium is removed from the base docking station 36 and carried (60) to the mobile docking station 42. In the mobile docking station, a select circuit 63 identifies the contents of the portable storage medium and a processor 64 reads, decompresses the program material, and converts the digital material to analog audio signal. . . .

DETDESC:

DETD(41)

FIG. 3 is a block level schematic diagram of an integrated, transportable, high capacity audio storage and recall device, including base and mobile docking ports according to the invention. This embodiment of. . . .

DETDESC:

DETD(42)

The integrated transportable storage and recall device 121 includes a storage medium 50, which may be any known storage device, as discussed above.. . .

DETDESC:

DETD(44)

FIG. 4 is a detailed block level schematic diagram showing a transportable, high capacity audio storage medium, including the base docking port of FIGS. 2 and 3, according to the invention. The. . . system 36 is the transmission system connection point and serves as the conduit for the transfer of data into the portable storage medium 50. The exemplary base docking system includes a cable television tuner (not shown in FIG. 2) that is. . . its original but still compressed state; a data interface that connects to the physical port that then connects to the portable storage system; and an AC power supply. In addition, there is an RF signal splitter that passes the entire cable. . . .

DETDESC:

DETD(46)

The storage medium is typically part of a portable storage system 78 that consists of the high-capacity data storage medium 50, e.g. a hard drive, Digital Audio Tape [DAT], . . . rates faster than real time, digital data from an external source. The second control interface may be incorporated into the portable storage system, for example as the control module 123 shown in FIG. 3 and the display module 79 shown in. . .

DETDESC:

DETD(47)

As discussed above in connection with FIGS. 2 and 3, the docking system 42, 142 accepts the portable storage system module and provides a subscriber control interface 48, readout/decompression protocol on a special purpose microprocessor 64, an FM. . .

DETDESC:

DETD(49)

FIG. 5 is a detailed block level schematic diagram of a transmission and distribution system for a high capacity, remotely programmable audio storage and playback system according to the invention. The transmission system includes a data assembler module 80, a data encryption and error detection. . .

DETDESC:

DETD(53)

FIG. 6 is a block level schematic diagram of a broadcast based high capacity, remotely programmable audio storage and playback system according to the invention. The system of FIG. 6 differs from those described above in that a first transmission. . .

2. 5,557,541, Sep. 17, 1996, Apparatus for distributing subscription and on-demand audio programming; Nathan Schulhof, et al., 348/7; 360/15 [IMAGE AVAILABLE]

US PAT NO: 5,557,541 [IMAGE AVAILABLE]

L6: 2 of 2

ABSTRACT:

A distribution system for audio program materials includes a portable audio storage and retrieval device that is programmable from a high speed data transfer system, and that includes a high-capacity data storage medium, a base control interface for identifying and accepting program material, a mobile control interface for displaying the identity of recorded material for playback selection, a recording mechanism for accepting very high speed digital data from an external source at rates faster than real time, and a playback mechanism for retrieving the stored data from the storage medium and for converting the data into audio signals for playback.

DETDESC:

DETD(3)

FIG. 1 is a block level schematic diagram of a high capacity, remotely programmable audio storage and playback system according to the present invention.



DETDESC:

DETD(4)

The . . . be implemented in any known digital storage technology, for example as a plurality of digital storage media, such as ultra fast hard drives. Program material may be introduced into the library from a variety of sources 14, 15, 16 that may be delivered electronically over a variety of data communications media at high speed from a plurality of locations, for example via modem transfer from a distributor, such as the Wall St. Journal.

DETDESC:

DETD(10)

A portable program storage/playback system 40, provides a specialized set of three interrelated subsystems that together capture the selected audio program material, store the program material, and enable easy transportation of the stored program material to a playback unit located. . . for example in a mobile environment, such as an automobile. The three subsystems include a base docking device 36, a portable storage unit 50, and a mobile docking device 44. Once program materials are stored on the portable storage medium 50 as discussed above, the medium is transferred (60) to an interface 42 provided by the mobile docking. . .

DETDESC:

DETD(12)

The subscriber attaches the portable storage device 50 to the base docking device 36, to which the cable from a cable TV supplier 28 is. . .

DETDESC:

DETD(15)

An . . . manager 10 keeps track of the duration of each selection, and informs the subscriber when the capacity on the particular portable storage device had been reached. It is anticipated that systems having various storage capacities may be offered to subscribers based. . .

DETDESC:

DETD(24)

Notwithstanding . . . the state of the art is such that approximately 4-6 or more hours of material may be stored in the portable storage medium. Such medium may be a hard disk drive, a floppy optical drive (floptical), a CD-ROM, a flash memory. . .

DETDESC:

DETD(25)

For . . . types of program material, such as music (typically 20-20,000 Hz). Thus, the actual transfer time, and storage time of the portable storage medium, are a function of the type of material transferred. The materials transferred are processed in accordance with many. . .

DETDESC:

DETD(28)

At any time after completion of the data transfer, the subscriber may disengage the portable storage module from the base docking station, and take it to a mobile docking station, for example in a vehicle, . . .

DETDESC:

DETD(30)

The Library. The library is a storage system that uses high capacity hard drives with at least 10 MB/sec read capabilities. This high read speed enables access and transmission to the subscriber over the. . .

DETDESC:

DETD(40)

#### The Portable Program Storage/Playback System

DETDESC:

DETD(41)

FIG. 2 is a block level schematic diagram of a transportable, high capacity audio storage medium 50, including base 36 and mobile 42 docking ports according to the invention.

DETDESC:

DETD(42)

The portable storage device consists of the following items:

DETDESC:

DETD(43)

The base docking system 36, the portable storage system 50, and the mobile docking/playback system 42. The base station includes a processor 66 that receives an input. . . demodulates, decodes, and decrypts the signal as necessary. A write circuit 67 transfers the program material thus prepared to the portable storage medium 50. The write circuit is chosen as appropriate for the portable storage medium, e.g. a disk drive for a hard disk storage medium.

DETDESC:

DETD(44)

The portable medium is intended for transportable use. Thus, the medium is removed from the base docking station 36 and carried (60) to the mobile docking station 42. In the mobile docking station, a select circuit 63 identifies the contents of the portable storage medium and a processor 64 reads, decompresses the program material, and converts the digital material to analog audio signal. . .

DETD(45)

DETD(45)

FIG. 3 is a block level schematic diagram of an integrated, transportable, high capacity audio storage and recall device, including base and mobile docking ports according to the invention. This embodiment of. . .

DETD(46)

DETD(46)

The integrated transportable storage and recall device 121 includes a storage medium 50, which may be any known storage device, as discussed above.. . .

DETD(48)

DETD(48)

FIG. 4 is a detailed block level schematic diagram showing a transportable, high capacity audio storage medium, including the base docking port of FIGS. 2 and 3, according to the invention. The. . . system 36 is the transmission system connection point and serves as the conduit for the transfer of data into the portable storage medium 50. The exemplary base docking system includes a cable television tuner (not shown in FIG. 2) that is. . . its original but still compressed state; a data interface that connects to the physical port that then connects to the portable storage system; and an AC power supply. In addition, there is an RF signal splitter that passes the entire cable. . .

DETD(50)

DETD(50)

The storage medium is typically part of a portable storage system 78 that consists of the high-capacity data storage medium 50, e.g. a hard drive, Digital Audio Tape [DAT],. . . rates faster than real time, digital data from an external source. The second control interface may be incorporated into the portable storage system, for example as the control module 123 shown in FIG. 3 and the display module 79 shown in. . .

DETD(51)

DETD(51)

As discussed above in connection with FIGS. 2 and 3, the docking system 42, 142 accepts the portable storage system module and provides a subscriber control interface 48, readout/decompression protocol on a special purpose microprocessor 64, an FM. . .

DETD(53)

DETD(53)

FIG. 5 is a detailed block level schematic diagram of a transmission and distribution system for a high capacity, remotely programmable audio storage and playback system according to the invention. The transmission

system includes a data assembler module 80, a data encryption and error detection. . .

DETDESC:

DETD(57)

FIG. 6 is a block level schematic diagram of a broadcast based high capacity, remotely programmable audio storage and playback system according to the invention. The system of FIG. 6 differs from those described above in that a first transmission. . .

=> d 14 1-16

1. 5,668,897, Sep. 16, 1997, Method and apparatus for imaging, image processing and data compression merge/purge techniques for document image databases; Salvatore J. Stolfo, 382/283 [IMAGE AVAILABLE]
2. 5,659,351, Aug. 19, 1997, Switch and insertion networks in optical cable TV system; David R. Huber, 348/7, 6, 13; 359/125; 455/4.2, 5.1 [IMAGE AVAILABLE]
3. 5,633,910, May 27, 1997, Outpatient monitoring system; Kopel H. Cohen, 379/38, 88, 106.02 [IMAGE AVAILABLE]
4. 5,594,490, Jan. 14, 1997, System for distributing video/audio files from central location to a plurality of cable headends; William P. Dawson, et al., 348/6, 12; 371/32; 455/3.2, 5.1 [IMAGE AVAILABLE].
5. 5,588,129, Dec. 24, 1996, Cache for optical storage device and method for implementing same; Clinton L. Ballard, 395/440; 364/243.41, DIG.1; 395/182.13, 449, 488 [IMAGE AVAILABLE]
6. 5,584,007, Dec. 10, 1996, Apparatus and method for discriminating among data to be stored in cache; Clinton L. Ballard, 395/440, 449, 465 [IMAGE AVAILABLE]
7. 5,579,143, Nov. 26, 1996, Optical system with tunable in-fiber gratings; David R. Huber, 359/130, 127; 385/47 [IMAGE AVAILABLE]
8. 5,572,442, Nov. 5, 1996, System for distributing subscription and on-demand audio programming; Nathan Schulhof, et al., 395/200.49; 348/6, 7; 455/4.2 [IMAGE AVAILABLE]
9. 5,557,541, Sep. 17, 1996, Apparatus for distributing subscription and on-demand audio programming; Nathan Schulhof, et al., 348/7; 360/15 [IMAGE AVAILABLE]
10. 5,557,442, Sep. 17, 1996, Optical amplifiers with flattened gain curves; David R. Huber, 359/179, 124, 130, 160, 161, 333, 341; 385/37 [IMAGE AVAILABLE]
11. 5,555,118, Sep. 10, 1996, Method for removing and inserting optical carriers in a WDM optical communication system; David R. Huber, 359/125, 130, 133; 385/24 [IMAGE AVAILABLE]
12. 5,534,711, Jul. 9, 1996, Electrically erasable, directly overwritable, multibit single cell memory elements and arrays fabricated therefrom; Stanford R. Ovshinsky, et al., 257/3, 2, 5 [IMAGE AVAILABLE]
13. 5,499,046, Mar. 12, 1996, CATV distribution system with each channel having its own remote scheduler; Jay B. Schiller, et al., 348/6, 3, 12; 455/5.1, 6.1 [IMAGE AVAILABLE]
14. 5,467,212, Nov. 14, 1995, Addressable grating modulation system for optical cable TV system; David R. Huber, 359/168, 125, 126, 169, 170 [IMAGE AVAILABLE]
15. 5,406,509, Apr. 11, 1995, Electrically erasable, directly overwritable, multibit single cell memory elements and arrays fabricated therefrom; Stanford R. Ovshinsky, et al., 365/113; 257/3; 365/163 [IMAGE AVAILABLE]

16. 5,365,217, Nov. 15, 1994, Personal security system apparatus and method;  
Frank J. Toner, 340/539, 531, 574; 455/38.2 [IMAGE AVAILABLE]

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=> d 12 1-25

1. 5,666,487, Sep. 9, 1997, Network providing signals of different formats to a user by multiplexing compressed broadband data with data of a different format into MPEG encoded data stream; William Goodman, et al., 395/200.76; 348/384; 370/395; 382/232 [IMAGE AVAILABLE]
2. 5,666,293, Sep. 9, 1997, Downloading operating system software through a broadcast channel; Erik C. Metz, et al., 395/200.5; 348/7, 10, 12; 455/3.1, 4.1, 4.2, 5.1 [IMAGE AVAILABLE]
3. 5,659,793, Aug. 19, 1997, Authoring tools for multimedia application development and network delivery; George Escobar, et al., 395/807, 135, 348 [IMAGE AVAILABLE]
4. 5,650,994, Jul. 22, 1997, Operation support system for service creation and network provisioning for video dial tone networks; Kathleen Daley, 370/259, 401 [IMAGE AVAILABLE]
5. 5,635,979, Jun. 3, 1997, Dynamically programmable digital entertainment terminal using downloaded software to control broadband data operations; Bruce Kostreski, et al., 348/13, 10, 12; 364/976.3, DIG.2; 455/4.2, 6.3 [IMAGE AVAILABLE]
6. 5,630,204, May 13, 1997, Customer premise wireless distribution of broadband signals and two-way communication of control signals over power lines; Denny L. Hylton, et al., 455/3.3; 340/310.06; 348/6, 7, 8, 12; 370/342; 455/4.2, 5.1 [IMAGE AVAILABLE]
7. 5,629,867, May 13, 1997, Selection and retrieval of music from a digital database; Robert J. Goldman, 381/77; 364/922.7, DIG.2; 381/80 [IMAGE AVAILABLE]
8. 5,627,836, May 6, 1997, VPI/VCI administration; Lisa Conoscenti, et al., 370/397; 348/7; 370/486; 455/3.1 [IMAGE AVAILABLE]
9. 5,621,728, Apr. 15, 1997, Level 1 gateway controlling broadband communications for video dial tone networks; Regina Lightfoot, et al., 370/397, 404 [IMAGE AVAILABLE]
10. 5,616,876, Apr. 1, 1997, System and methods for selecting music on the basis of subjective content; Jonathan C. Cluts, 84/609, 477R; 434/307A [IMAGE AVAILABLE]
11. 5,613,191, Mar. 18, 1997, Customer premise wireless distribution of audio-video, control signals and voice using CDMA; Denny L. Hylton, et al., 455/3.1; 348/7, 12; 370/342; 455/4.2 [IMAGE AVAILABLE]
12. 5,613,190, Mar. 18, 1997, Customer premise wireless distribution of audio-video, control signals and voice; Denny L. Hylton, 455/3.1; 348/6, 12, 13; 455/4.2, 6.3 [IMAGE AVAILABLE]
13. 5,583,864, Dec. 10, 1996, Level 1 gateway for video dial tone networks; Regina Lightfoot, et al., 370/396; 348/3, 7; 370/404; 379/201 [IMAGE AVAILABLE]
14. 5,572,442, Nov. 5, 1996, System for distributing subscription and on-demand audio programming; Nathan Schulhof, et al., 395/200.49; 348/6, 7; 455/4.2 [IMAGE AVAILABLE]

15. 5,557,541, Sep. 17, 1996, Apparatus for distributing subscription and on-demand audio programming; Nathan Schulhof, et al., 348/7; 360/15 [IMAGE AVAILABLE]
16. 5,544,161, Aug. 6, 1996, ATM packet demultiplexer for use in full service network having distributed architecture; John A. Bigham, et al., 370/397; 348/6, 7, 12; 370/474 [IMAGE AVAILABLE]
17. 5,541,638, Jul. 30, 1996, User programmable entertainment method and apparatus; Guy A. Story, 348/7, 13; 455/4.2 [IMAGE AVAILABLE]
18. 5,530,751, Jun. 25, 1996, Embedded hidden identification codes in digital objects; Dale C. Morris, 380/4 [IMAGE AVAILABLE]
19. 5,195,135, Mar. 16, 1993, Automatic multivariate censorship of audio-video programming by user-selectable obscuration; Douglas A. Palmer, 380/20; 348/1, 5.5 [IMAGE AVAILABLE]
20. 5,062,010, Oct. 29, 1991, Electronic still camera with remotely-controlled audio recording feature; Etsuro Saito, 386/106; 348/232; 358/906; 386/107 [IMAGE AVAILABLE]
21. 4,910,441, Mar. 20, 1990, Audio loading modulated side pincushion correction circuit; Steven C. Wetta, 315/371 [IMAGE AVAILABLE]
22. 4,839,879, Jun. 13, 1989, Method for recording data on non-defective sectors of an optical disk; Kaname Sawada, et al., 369/54 [IMAGE AVAILABLE]
23. 4,746,993, May 24, 1988, Electronic still camera with indicator for number of tracks available for video and/or audio recording; Kanehiro Tada, 386/107; 348/232, 376; 358/906; 369/53; 386/120 [IMAGE AVAILABLE]
24. 4,683,591, Jul. 28, 1987, Proportional power demand audio amplifier control; Brian D. Dawson, et al., 381/85, 58 [IMAGE AVAILABLE]
25. 4,390,145, Jun. 28, 1983, Magnetic tape handling apparatus; Wolfgang Giese, 242/334.1; 226/82; 242/334, 334.2, 334.3, 418; 360/71 [IMAGE AVAILABLE]



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E003 WORD FREQUENCY SEARCH REPORT

Classification Analysis:

1. 348/7           Total=10 ORs=4 XRs=6  
    Class 348     TELEVISION  
    Sub 6        WIRED BROADCAST (E.G., CABLE)  
    Sub 7        .Broadcast on demand
2. 348/13        Total=7 ORs=3 XRs=4  
    Class 348     TELEVISION  
    Sub 13       TWO-WAY (E.G., INTERACTIVE)
3. 348/12        Total=6 ORs=2 XRs=4  
    Class 348     TELEVISION  
    Sub 6        WIRED BROADCAST (E.G., CABLE)  
    Sub 12       ..Two-way
4. 455/4.2       Total=6 ORs=0 XRs=6  
    Class 455     TELECOMMUNICATIONS  
    Sub 3.1      DISTRIBUTION SYSTEM (E.G., PLURAL CABLES, ETC.)  
    Sub 4.1      ..Remote control of distribution  
    Sub 4.2      ..With subscriber selection or switching
5. 348/10        Total=5 ORs=0 XRs=5  
    Class 348     TELEVISION  
    Sub 6        WIRED BROADCAST (E.G., CABLE)  
    Sub 10       ..With subscriber terminal details
6. 348/14        Total=5 ORs=1 XRs=4  
    Class 348     TELEVISION  
    Sub 13       TWO-WAY (E.G., INTERACTIVE)  
    Sub 14       ..With voice capability (e.g., videophone)
7. 386/104       Total=5 ORs=2 XRs=3  
    Class 386     TELEVISION SIGNAL PROCESSING FOR DYNAMIC RECORDING  
                  OR REPRODUCING  
    Sub 46       PROCESSING OF TELEVISION SIGNAL FOR DYNAMIC  
                  RECORDING OR REPRODUCING  
    Sub 95       ..Having another signal  
    Sub 96       ..Audio signal  
    Sub 104      ...Digital audio signal

8. 375/240      Total=4   ORs=3   XRs=1  
     Class 375    PULSE OR DIGITAL COMMUNICATIONS  
     Sub 240      BANDWIDTH REDUCTION OR EXPANSION
9. 379/105      Total=4   ORs=0   XRs=4  
     Class 379    TELEPHONIC COMMUNICATIONS  
     Sub 90      TELEPHONE LINE OR SYSTEM COMBINED WITH DIVERSE  
                  ELECTRICAL SYSTEM OR SIGNALLING (E.G., COMPOSITE)  
     Sub 102     .Remote control  
     Sub 105     ..From terminal
10. 455/5.1      Total=4   ORs=0   XRs=4  
     Class 455    TELECOMMUNICATIONS  
     Sub 3.1      DISTRIBUTION SYSTEM (E.G., PLURAL CABLES, ETC.)  
     Sub 5.1      .Two-way

Patent Report:

Ref   Patent Id   Issue/File   US Class (OR)   Title

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 1   05550863   Aug 27 1996   375/240   Audio and video transmission and  
                  Oct 8 1993                   receiving system

Inventor: Yurt; Paul et al.

Assignee: Browne; H. Lee

Abstract:

A system of distributing video and/or audio information employs digital signal processing to achieve high rates of data compression. The compressed and encoded audio and/or video information is sent over standard telephone, cable or satellite broadcast channels to a receiver specified by a subscriber of the service, preferably in less than real time, for later playback and optional recording on standard audio and/or video tape.

2   05132992   Jul 21 1992   375/240   Audio and video transmission and  
                  Jan 7 1991                   receiving system

Inventor: Yurt; Paul et al.

Abstract:

A system of distributing video and/or audio information employs digital signal processing to achieve high rates of data compression. The compressed and encoded audio and/or video information is sent over standard telephone, cable or satellite broadcast channels to a receiver specified by a subscriber of the service, preferably in less than real time, for later playback and optional recording on standard audio and/or video tape.

3 05253275 Oct 12 1993 375/240 Audio and video transmission and  
Apr 2 1992 receiving system

Inventor: Yurt; Paul et al.

Assignee: Browne; H. Lee

Abstract:

A system of distributing video and/or audio information employs digital signal processing to achieve high rates of data compression. The compressed and encoded audio and/or video information is sent over standard telephone, cable or satellite broadcast channels to a receiver specified by a subscriber of the service, preferably in less than real time, for later playback and optional recording on standard audio and/or video tape.

4 05572442 Nov 5 1996 364/514 C System for distributing  
Jul 21 1994 subscription and on-demand audio  
programming

Inventor: Schulhof; Nathan et al.

Assignee: Information Highway Media Corporation

Abstract:

A distribution system for audio program materials includes a portable audio storage and retrieval device that is programmable from a high speed data transfer system, and that includes a high-capacity data storage medium, a base control interface for identifying and accepting program material, a mobile control interface for displaying the identity of recorded material for playback selection, a recording mechanism for accepting very high speed digital data from an external source at rates faster than real time, and a playback mechanism for retrieving the stored data from the storage medium and for converting the data into audio signals for playback.

5 05557541 Sep 17 1996 364/514 R Apparatus for distributing  
Jul 21 1994 subscription and on-demand audio  
programming

Inventor: Schulhof; Nathan et al.

Assignee: Information Highway Media Corporation

Abstract:

A distribution system for audio program materials includes a portable audio storage and retrieval device that is programmable from a high speed data transfer system, and that includes a high-capacity data storage medium, a base control interface for identifying and accepting program material, a mobile control interface for displaying the identity of recorded material for playback selection, a recording mechanism for accepting very high speed digital data from an external source at rates faster than real time, and a playback mechanism for retrieving the stored data from the storage medium and for converting the data into audio

signals for playback.

- 6 05386493 Jan 31 1995 395/2.76 Apparatus and method for playing  
Sep 25 1992 back audio at faster or slower  
rates without pitch distortion

Inventor: Degen; Leo M. W. F. et al.

Assignee: Apple Computer, Inc.

Abstract:

A computer implemented apparatus and method for modifying the playback rate of a previously stored audio or voice data file stored within a computer system without altering the pitch of the audio data file as originally stored. The present invention also maintains a high level of sound quality during playback. The present invention includes a double buffering system in order to perform all of the desired calculations in real time. A time stretching technique is employed upon the audio data file to decrease or increase playback rate which creates audio segments requiring joining processing. Junctions are smoothed by employing a cross-fade amplitude envelope filter and a compressor/limiter is used to maintain filter range. The system may operate on a desktop computer allowing for advantageous playback and audio data management options of stored voice and or sound data.

- 7 05524051 Jun 4 1996 380/9 Method and system for audio  
Apr 6 1994 information dissemination using  
various modes of transmission

Inventor: Ryan; John O.

Assignee: Command Audio Corporation

Abstract:

A system and method of information dissemination that permits the user to listen to the specific content of information when and where he or she wants to. A radio or television receiver system receives information from an FM subcarrier, a television vertical blanking interval transmission, an active picture area television transmission a television separate audio program transmission or a dedicated radio channel and stores the transmitted information in a memory. A user interface allows selection from the memory of the stored information via a set of menus controlling a hierarchical database, so as to access particular items of the information. Typically the system includes RAM and/or a magnetic storage medium such as a digital audio tape, a magneto-optical mini-disk, a magnetic disk or optical disk, sufficient to store information for several hours of audio output. A decompression device accepts the accessed compressed digital audio information items and transforms them into audible speech signals. The user interface is either a voice control or a single or multi-position switch allowing scanning through and selection from the menu items. The system is also capable of transmitting

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E003 WORD FREQUENCY SEARCH REPORT

Top Referenced Classes (up to 50):

1. 348/7	Total=10	ORs=4	XR=6
2. 348/13	Total=7	ORs=3	XR=4
3. 348/12	Total=6	ORs=2	XR=4
4. 455/4.2	Total=6	ORs=0	XR=6
5. 348/10	Total=5	ORs=0	XR=5
6. 348/14	Total=5	ORs=1	XR=4
7. 386/104	Total=5	ORs=2	XR=3
8. 375/240	Total=4	ORs=3	XR=1
9. 379/105	Total=4	ORs=0	XR=4
10. 455/5.1	Total=4	ORs=0	XR=4

Top Closest Patents:

5550863	5132992	5253275	5572442	5557541
5386493	5524051	4924303	5590195	4851931
4640991	5262875	5247347	5164980	5539452
5347305	5623690	5129036	5303326	5228859
5579239	5630005	5586216	5557320	5635979
5475835	5594779	5633918	5559608	5555098
5606359	5218487	5410343	5208665	4585906
5375221	4580012	4652700	5577108	4949187
4727433	5477511	4638377	4703368	5113496
5119188	5195092	5191410	5426645	5475498